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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,854	12/20/2001	Shijian Li	AMAT/5765/CMP/CMP/RKK	1816

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APPLIED MATERIALS, INC.
2881 SCOTT BLVD. M/S 2061
SANTA CLARA, CA 95050

EXAMINER

GRANT, ALVIN J

ART UNIT	PAPER NUMBER
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3723

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/026,854

Applicant(s)

LI ET AL.

Examiner

Alvin J Grant

Art Unit

3723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed 12/17/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39-59, 61, 62 and 67-75 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39-59, 61, 62, 67-69, 71-75 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 70 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Newly submitted claim 70 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The claim introduces a new species that entails nonconductive and conductive concentric portions.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 70 withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 39-43, 45-50, 52-59, 61, 62, 67-69 and 71-75 are rejected under 35 U.S.C. 102(b) as being anticipated by Breivogel et al. '064.

Breivogel et al. discloses an article of manufacture for polishing a substrate comprising a polishing article having a center portion and a perimeter portion, a polishing surface defined on the center portion, a plurality of perforations formed in at least a portion of the center portion of the polishing article for flow of material therethrough, a plurality of grooves disposed in the polishing surface, and wherein the center portion of the

polishing article conducts electricity across the polishing surface; at least one of the plurality of perforations intersects with at least one of the plurality of grooves on the polishing surface (Fig. 6A); each of the perforations has a diameter of between about 0.16 and about 0.5 inches and are disposed between about 0.1 and about 1.0 inch from one another (column 6, lines 31-41); The center portion of the polishing article comprises a conductive material or a dielectric material having conductive elements disposed therein (column 4, lines 31-34); the plurality of grooves form a pattern comprising substantially circular concentric grooves, an X-Y pattern, or a triangular pattern on the polishing surface (Fig. 6A); the polishing article is disposed on a perforated sub-pad (Fig. 6A); the perforated sub-pad comprises a plurality of pores disposed therein for flow of material therethrough and the plurality of pores of the perforated sub-pad and the plurality of perforations in the polishing article are aligned for flow of material through the perforated sub-pad and the polishing article; the center portion of the polishing article comprises a dielectric material having conductive elements disposed therein, wherein the conductive elements are electrically connected to one another in the polishing article; and the perimeter portion of the polishing article conducts electricity across the upper surface of the perimeter portion of the polishing article; the perimeter portion of the polishing article comprises a dielectric material having conductive elements disposed therein, wherein the conductive elements are electrically connected to one another in the polishing article.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 44 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breivogel et al. in view of Osterheld et al. '855.

Breivogel et al. is described above. Breivogel et al. does not specifically disclose the grooves being about 0.03-0.3 inches apart. Osterheld et al. discloses a polishing pad in which the grooves are about 0.03-0.3 inches apart so as to effectively convey the slurry. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the apparatus of Breivogel et al. to have grooves spaced).03-0.3 inches apart as taught by Osterheld so as to effectively convey the slurry.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin J Grant whose telephone number is (571) 272-4484. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J Hail can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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DAVID B. THOMAS
PRIMARY EXAMINER